

STUDIES IN THE EUPATORIEAE (ASTERACEAE). CLXXXVII I.

NEW SPECIES OF *MIKANIA* FROM BRASIL.

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Attempts to identify Asteraceae from Brasil have resulted in the recognition of the following eight previously undescribed species of *Mikania*.

*MIKANIA ALVIMII* R. M. King & H. Robinson, sp. nov.

Plantae erectae ad 60 cm altae. Caules fistulosi hexagonales costati glabri. Folia opposita sessilia; laminae subcarnosae ellipticae vel obovatae plerumque 4-7 cm longae et 1.2-2.8 cm latae base cuneatae margine integrae vel superne subtiliter remote subcrenulatae apice rotundatae vel vix obtusae utrinque glabrae e basis quinquenervatae, nervis lateralibus minoribus, nervulis subtus prominulis. Inflorescentiae terminales corymboso-paniculatae in internodiis inferioribus elongatae, ramis paucis valde ascendentibus plerumque glabris, ramulis ultimis plerumque 3-8 mm longis sparse tenuiter puberulis; bracteis inferioribus subfoliaceis maxime 1.8 mm longae et ca. 4 mm latae; bracteis superioribus minutis. Capitula ca. 9 mm alta; bractea subinvolutralis nulla vel remota membranacea linearis ca. 4 mm longa; bractee involucae oblongo-ellipticae 5.0-6.0 mm longae apice breviter acutae margine lateraliter pallidae anguste scariosae extus fusco-virides glabrae. Corollae albae 6.0-6.5 mm longae, tubis supra basem cylindraceutis ca. 2.3 mm longis extus glabris, faucibus abruptis leniter campanulatis ca. 2 mm longis extus glabris intus laevibus, lobis oblongo-ovatis ca. 2 mm longis et ca. 1 mm latis margine dense puberulo-fimbriatis extus persparse puberulis, nervis loborum solitariis distincte intramarginalibus; filamenta in partibus inferioribus ca. 1 mm longa et 0.15-0.17 mm lata in partibus superioribus ca. 0.35 mm longa superne leniter angustiora; thecae fuscescentes ca. 1.8-2.0 mm longae; appendices antherarum oblongo-ovatae ca. 0.6 mm longae et 0.3 mm latae; nectarium cylindricum ca. 0.1 mm altum; scapi stylorum vix incrassati; appendices stylorum non attenuatae perdense patentiter longe papillosae. Achaenia ca. 4.5 mm longa prismatica 5-costata plerumque glabra superne sensim puberula inferne sensim angustiora, carpodia discreta minute obturaculiformia; setae pappi ca. 35 plerumque 5.5-6.5 mm longae superne leniter latiores, cellulis apicalibus vix densioribus et subacutis. Grana pollinis ca. 25  $\mu$ m in diametro.

TYPE: BRASIL: Bahia: Município de Rio de Contas. Base de Pico das Almas, a 18 km ao NW de Rio de Contas. Elev. 1300 m. Common herbs, flowers white. July 24, 1979. *R.M.King, S.Mori, T.S.Santos & J.Hage 8126* (Holotype RB, isotypes CEPEC, US).  
 PARATYPES; BRASIL: Bahia: Lower slopes of the Pico das Almas, ca. 25 km WNW of the town of Rio de Contas. Approx.  $41^{\circ}55'W$ ,  $13^{\circ}32'S$ . Alt. approx. 1500 m. "Carresco" scrub vegetation among rocks, with occasional wet flushes, and some areas partly burnt over. Herb to ca. 60 cm. Fleshy green leaves. Bracteoles green. Flowers clear white. 24 Jan. 1974. *R.M.Harley, S.A.Renvoize, C.M.Erskine, C.A.Brighton & R.Pinheiro 15478* (US); Lower NE slopes of the Pico das Almas, ca. 25 km WNW of the Vila do Rio de Contas. Approx.  $41^{\circ}57'W$ ,  $13^{\circ}33'S$ . Alt. 1500 m. Sandstone, metamorphic and quartzite rock outcrops with associated marsh and damp flushes. Herb to 50 cm. Leaves slightly fleshy, mid-green above, paler beneath. Phyllaries pale green with brown tips. Pappus off-white. 17.2.77. *R.M.Harley, S.J.Mayo, R.M.Storr, T.S.Santos & R.S.Pinheiro 19563* (US).

*Mikania alvimii* is rather distinct in the erect stems branching only near the base. The inflorescence is an elevated corymbose panicle. The lobes of the corolla have a prominent fringe of marginal hairs. The closest relative seems to be *M. oxylepis* Sch.Bip. ex Baker of Minas Gerais, but that species has strongly toothed rather than entire leaves, and has sharply pointed involucre bracts.

The species is named for Dr. Paulo Alvim, Director of Research, at the Centro de Pesquisas do Cacau, Itabuna, Bahia.

MIKANIA BELEMII R. M. King & H. Robinson, sp. nov.

Plantae volubiles. Caules anguste fistulosi fuscescentes teretes striati plerumque in sulcis minute appresse puberuli. Folia opposita, petiolis ad 17 mm longis; laminae membranaceae ovatae vel oblongo-ovatae plerumque 6-9 cm longae et 2.2-3.5 cm latae base rotundatae vel breviter acuminatae margine integrae apice distincte late vel anguste acuminatae supra glabrae vel glabrescentes subtus sparse plerumque in nervis minute appresse puberulae fere ad basem valde trinervatae; reticulo nervulorum distincto subtus leniter prominulo. Inflorescentiae pyramidaliter thyrsoido-paniculatae, ramulis dense puberulis vel hirtellis, ramulis ultimis 2-4 mm longis; bracteis primariis foliaceis ellipticis plerumque 1-5 cm longis; bracteis secundariis valde minoribus. Capitula ca. 7 mm alta; bractea subinvolucralis membranacea lanceolata ca. 2-3 mm longa et ca. 0.6-0.8 mm lata glabra; bracteae involucri chartaceae oblongae ca. 4.0-4.5 mm longae et 1.2-1.5 mm latae apice obtusae vel rotundatae margine superne minute puberulo-fimbriatae extus glabrae. Corollae albae ca. 4.5 mm longae, tubis cylindricis ca. 2 mm longis extus puberulis, faucibus abrupte late campanulatis ca. 0.8 mm longis extus glabris intus laevibus, lobis oblongo-ovatis ca. 1.5 mm longis et ca. 0.6 mm latis margine et apice minute puberulis,

nervis marginalibus duplicibus; filamenta in partibus inferioribus ca. 0.8 mm longa et 0.1 mm lata in partibus superioribus ca. 0.2 mm longa base 0.12 mm lata; thecae pallidae ca. 1.2 mm longae; appendices antherarum breviter oblongae ca. 0.25 mm longae et latae; nectarium breviter cylindricum ca. 0.4 mm altum; basi stylorum leniter noduliferi; appendices stylorum vix vel non attenuatae distincte complanatae distincte minute papillosae. Achaenia ca. 4.0 mm longa prismatica 5-costata sparse puberula base sensim angustiores subcarnosa, pilis uniseriatis in cellulis apicalibus breviter clavatis; setae pappi ca. 50 plerumque 4-5 mm longae longiores in apicem leniter latiores, cellulis apicalibus vix densioribus vix obtusioribus. Grana pollinis ca. 23  $\mu$ m in diametro.

TYPE: BRASIL: Bahia: Município de Ilhéus. Rod. BR 415, trecho Ilhéus/Itabuna, km 12. Region de Mata Higrofila Sul Baiana, ca. 50 m de alt. Margem da rodovia. Common vines in trees, flowers grey-white. July 10, 1979. *R.M.King & L.A.Mattos Silva 8007* (Holotype RB, isotypes CEPEC, US). PARATYPES: BRASIL: Bahia: Rodovia Camacan - Itabuna. Plantação de Cacau. Cipó. Flores brancas, involúcro verde, caule piloso. 29-7-1965. *Belém 1416* (US); Santa Cruz Cabrália, (BA). Mata costeira. Cipó sobre árvore de 15 m; flores brancas. 16.7.1966. *R.P.Belém & R.S. Pinheiro 2597* (CEPEC); Porto Seguro, BR 5. Planta de Formacás secundaria. 25-8-1961. *A.P.Duarte 6003* (RB, US); Município de Alcobaca. Rod. BA 001, trecho Alcobaca/Prado, a 5 km a NW de Alcobaca. Restinga. Folha SE - 24 (18039a). Cipó. 9-17-1978. *S.Mori, L.A.Mattos Silva & T.S.dos Santos 10585* (CEPEC); Ba. Rod. Lagoa Encantada Mata solo arenoso. Trepadeira fl. branca perfumada. 23.7.71. *R.S.Pinheiro 1480* (CEPEC, US); BA. Itiua Município de Nilo Peçanha Mata-restinga. Trepadeira sobre árvore flor branca. 19.6.73. *T.S.Santos 2674* (CEPEC, US).

On the basis of the thyrsoid-paniculate inflorescences, the spreading short-throated limb of the corolla, and the double veins of the corolla lobes, the new species would come close to *M. lindleyana* DC. and *M. salviaefolia* Gardn. in the treatment by Barroso (1958). The latter species differs by its leaves having hastate bases and tomentose undersurfaces. *Mikania lindleyana* differs by having large subinvolucral bracts 5-6 mm long, and having achenes and peduncles glabrous or nearly glabrous.

MIKANIA GRAZIELAE R. M. King & H. Robinson, sp. nov.

Plantae volubiles. Caules atro-brunnescentes non fistulosi hexagonales plerumque glabrescentes in nodis sensim dense puberuli vel tomentelli. Folia opposita, petiolis distinctis plerumque 2-7 mm longis; laminae herbaceae late ovatae ca. 1.4-3.4 cm longae et 1.2-3.5 cm latae base truncatae vel vix cordatae ad medio in partibus trinervatis breviter acutae margine integrae vel leniter undulatae apice anguste rotundatae supra glabrae in nervis et nervulis insculptae subtus distincte breviter puberulae et dense glandulo-punctatae in nervis et nervulis exsculptae

longius puberulae. Inflorescentiae in ramis lateralibus terminales thyrsoidae-paniculatae, ramis corymbosis tenuiter puberulis, ramis ultimis 1-5 mm longis dense puberulis, bracteis primariis foliiformibus in laminis plerumque 8-12 mm longis et 7-12 mm latis, bracteis in ramulis squamiformibus ca. 2 mm longis. Capitula anguste campanulata 8-9 mm alta et ca. 3 mm lata; bractea subinvolucralis herbacea elliptica ca. 3.5 mm longa et 3.0 mm lata minute puberula et glandulo-punctata; bractea involucricum late oblongae ca. 5 mm longae et 2.2-2.5 mm latae base leniter subcarnosae gibbosae apice late rotundatae et saepe minute apiculatae margine anguste scariosae et sensim pallidiores extus ad medio sparse puberulae. Corollae cremaeae aliquantum salverformes ca. 6 mm longae extus in tubis et faucibus dense puberulis, tubis cylindraceutis ca. 3.5 mm longis, faucibus breviter infundibularibus ca. 1.5 mm longis, lobis oblongis ca. 2 mm longis et 1 mm latis extus superne parce puberulis ad apicem dense minute glandulo-punctatis; filamenta in partibus inferioribus ca. 1 mm longa et 0.2 mm lata in partibus superioribus 0.20-0.25 mm longa et base ad 0.25 mm lata; thecae atro-violaceae ca. 1.5 mm longae; appendices antherarum oblongo-ovatae ca. 0.4 mm longae et 0.3 mm latae; nectarium cylindricum ca. 1 mm altum; scapi stylorum leniter incrassati; appendices stylorum solum ad apicem sensim angustiores ubique dense papillosae. Achaenia ad 4 mm longa prismatica 5-costata base leniter angustiora base perdense puberula superne plerumque in costis puberula superne pilis biseriatis longis contortis et in parte retrorsis dense obtecta in costis minute papillosa; setae pappi biseriatae ca. 60 longiores ad 6 mm longae apice leniter latiores, cellulis apicalibus obtusioribus. Grana pollinis plerumque ca. 23-25  $\mu$ m in diametro.

TYPE: BRASIL: Bahia: Município de Mucugê, a 3 km ao S de Mucugê. Na estrada que vai par Jussiape. Elev. ca. 1000 meters. Vine, flower cream-white, fragrant. July 26, 1979. R.M. King, S.Mori, T.S.dos Santos & J.Hage 8159 (Holotype RB, isotypes CEPEC, US).

*Mikania grazielae* has some resemblance to *M. phaeoclados* Mart. ex Baker of Bahia, Espírito Santo and Minas Gerais, but is apparently not closely related, differing by the broader more entire leaves, the broader bracts of the involucre, the deeply divided limb of the corolla, and the different achene pubescence. The inflorescence is also more cylindrically paniculate and the bracts of the inflorescence branches are short and blunt. The achene of the new species is the most distinctive feature, having large contorted retrorse setae on the upper part that seem almost like an outer pappus, and having a dense felt of finer hairs basally above the carpodium.

The densely foliate vine with dense panicles of heads presents a rather striking appearance. It is with pleasure that it is named here for Dr. Graziela M. Barroso of the Jardim Botânico, Rio de Janeiro, who has written the only recent treatment of the genus *Mikania* for Brasil.

MIKANIA HAGEI R. M. King & H. Robinson, sp. nov.

Plantae fruticosae ad 1 m altae. Caules atro-brunnescentes non fistulosi multi-angulati dense glandulo-punctati. Folia verticillata in nodis 3-4, petiolis ca. 5-10 mm longis; laminae obovatae plerumque 2.5-5.0 cm longae et 1.7-3.4 cm latae base cuneatae vel anguste acuminatae margine integrae vel leniter crenulatae apice rotundatae supra et subtus dense glandulo-punctatae supra basem valde trinervatae, nervulis vix vel non prominulis. Inflorescentiae terminales thyrsoido-paniculatae in ramis paniculatis, ramis puberulis et glandulo-punctatis, ramulis ultimis plerumque ca. 2 mm longis; bracteis primariis foliiformibus plerumque 1.5-3.5 cm longis, bracteis ultimis et subinvolucralibus anguste ellipticis vel sublinearibus ca. 3 mm longis et 1 mm latis puberulis et glandulo-punctatis. Capitula anguste cylindrica ca. 1 cm alta; bractee involucri oblongae ca. 4 mm longae et 2 mm latae apice rotundatae margine anguste distincte scariosae extus glandulo-punctatae et minute puberulae. Corollae albae ca. 6.5 mm longae, tubis late cylindraceutis ca. 2 mm longis extus glandulo-punctatis, faucibus anguste campanulatis ca. 3.5 mm longis sparse glandulo-punctatis intus laevibus, lobis triangularibus ca. 1 mm longis et latis extus glandulo-punctatis; filamenta in partibus inferioribus ca. 2.5 mm longa et ca. 1.7 mm lata in partibus superioribus ca. 0.7 mm longa et 0.15 mm lata; thecae pallidae ca. 1.7 mm longae; appendices antherarum oblongae ca. 0.35 mm longae et 0.25 mm latae; nectarium breviter cylindricum ca. 0.4 mm altum; scapi stylorum leniter incrassati, superne et in ramis inferioribus abaxialiter sparse puberuli, pilis uniseriatis 1-2-septatis, rami stylorum in partibus stigmataceis superioribus et appendicibus inferioribus saepe abaxialiter glandulo-punctati, appendices stylorum lineares dense breviter papillosae apice vix angustiores. Achaenia ca. 4 mm longa prismatica 5-costata dense glandulo-punctata base et apice et in costis breviter multo setifera base sensim leniter angustiora, carpodia indiscreta breviter rotundata; setae pappi ca. 40 plerumque 7-8 mm longae apice distincte anguste clavatae, cellululis apicalibus plerumque obtusis. Grana pollinis ca. 25  $\mu$ m in diametro.

TYPE: BRASIL: Bahia: Municipio de Rio de Contas. Base de Pico das Almas, a 18 km ao NW de Rio de Contas. Elev. ca. 1300 meters. Shrub one meter tall, flowers white. July 22, 1979. R.M. King, S.Mori, T.S.dos Santos & J.Hage 8101 (Holotype RB, frag. US).

*Mikania hagei* is one of a few species in the genus with an erect habit and verticillate leaves on the primary stems. The characters place the species closest to *M. subverticillata* Sch. Bip. ex Baker of Minas Gerais, but that species has subcoriaceous, glabrous, dentate leaves. The aspect and the sulcate stems are similar to *M. neurocaula* DC. and *M. rothii* Barroso, both of Minas Gerais, but the leaves of the latter are described as opposite and they are pilose or tomentose. The related species

should be examined for style pubescence of the type seen in *M. hagei*.

MIKANIA INORDINATA R. M. King & H. Robinson, sp. nov.

Plantae volubiles. Caules brunnescentes fistulosi subhexagonales striati plerumque in nodis sparse minute puberuli et persparse minute glandulo-punctati. Folia opposita, petiolis ad 5.5 cm longis base sensim incrassatis et breviter alatis; laminae ovatae vel deltoideae ca. 8 cm longae et 5-6 cm latae base subtruncatae vel subcordatae in medio in parte trinervatae cuneatae margine integrae apice anguste acutae supra sparse minute pilosae et glandulo-punctatae subtus pallidiores sparse minute puberulae et glandulo-punctatae. Inflorescentiae in ramis terminales pyramidaliter paniculatae in ramulis subcorymbosis, capitulis apicalibus procrastinatis, ramulis ultimis plerumque 1-3 mm longis sparse glandulo-punctatis et dense puberulis vel subtomentellis, bractee omnino minutae solum infimae minute foliiformes ad ca. 1 cm longae breviter petiolatae. Capitula anguste cylindrica ca. 10 mm alta et ca. 2.5 mm lata; bractea subinvolucralis linearis ca. 2.5 mm longa; bractee involucri anguste oblongae ca. 7 mm longae et 1.2-1.5 mm latae apice acutae margine anguste scariosae extus minute glandulo-punctatae superne sensim dense puberulae vel subtomentellae. Corollae albae salverformes ca. 5 mm longae, tubis supra basem anguste cylindraceis ca. 3 mm longis extus persparse puberulis et glandulo-punctatis, faucibus abrupte late infundibularibus ca. 1 mm longis extus glabris vel persparse minute glandulo-punctatis intus laevibus, lobis oblongo-ovatis ca. 1 mm longis et 0.6 mm latis extus superne dense glandulo-punctatis subapice pauca minute puberulis; filamenta in partibus inferioribus ca. 1 mm longa et 0.13 mm lata in partibus superioribus ca. 0.2 mm longa et base 0.15 mm lata; thecae purpurascens ca. 1.2 mm longae; appendices antherarum oblongae ca. 0.25 mm longae et 0.23 mm latae; nectarium cylindricum ca. 0.6 mm altum et 0.5-0.6 mm latum; scapi stylosum vix vel non incrassati glabri; appendices stylosum lineares dense breviter papillosae apice vix angustiores. Achaenia ca. 3.5-4.0 mm longa prismatica 5-costata base puberula vel in partibus subtomentellis persparse glandulo-punctata apice plerumque in costis retrorse contorte setifera plerumque in costis minute papillosa base sensim angustiora; carpodia distincte cylindrica; setae pappi ca. 2-seriatae 70-75 plerumque 4-5 mm longae dense scabridulae superne leniter latiores, cellulis apicalibus breviter acutis. Grana pollinis ca. 23  $\mu$ m in diametro.

TYPE: BRASIL: Bahia: Municipio de Maracás. Fazenda do Pássaros. A 24 km a E de Maracás. AH ca. 900 m. Mata de Cipo, perturbada. Common vines to 3 meters above ground, flowers white. July 13, 1979. R.M. King & S. Mori 802L (Holotype CEPEC).

*Mikania inordinata* has a habit reminiscent of the *M. scandens* group, though the leaf blades are not cordate and the inflorescence is not corymbose. The distorted setae clustered at the

top of the achene, and the highly cylindrical nectary are most like *M. grazielae* n. sp., but the two species differ in most other features, and they seem unlikely to be close relatives. The inflorescence of *M. inordinata* is unusual in its short pyramidally paniculate form with the apical parts maturing later than the lateral parts. Most Asteraceae are more obviously cymose in their maturation pattern.

MIKANIA MORII R. M. King & H. Robinson, sp. nov.

Plantae volubiles. Caules subtiliter rubescentes vel flavo-virides fistulosi teretes multo striati glabri vel persparse puberuli in nodis parum vel distincte stipuliformiter appendiculati. Folia opposita, petiolis ad 9 cm longis distincte anguste alatis; laminae triangulares ad 18 cm longae et 15 cm latae base late cordatae vel hastatae vel auriculatae ad medio in partibus trinervatis late acutae margine multo denticulatae vel crenulato-denticulatae apice breviter acutae vel anguste acuminatae supra minute puberulae subtus sparse minute glandulo-punctatae et in nervis et nervulis breviter pilosae. Inflorescentiae axillares vel in ramis lateralibus terminales thyrsosideo-paniculatae vel pyramidaliter paniculatae, ramulis puberulis vel tomentellis, ramulis ultimis ca. 1 mm longis. Capitula subcylindrica vel anguste campanulata plerumque 10-12 mm alta et ca. 3 mm lata; bractea subinvolucralis subherbacea elliptica ca. 5-7 mm longa extus glabra vel sparse minute puberula; bractee involucri chartaceae 7-9 mm longae et 1.5-2.5 mm latae apice obtusae vel subtundatae dense minute puberulo-fimbriatae extus evanescentiter minute puberulae vel glabrae. Corollae albae vel albo-virides aliquantum salverformes ca. 6.5-7.0 mm longae extus glabrae, tubis cylindraceis 3.5-4.0 mm longis, faucibus breviter infundibularibus ca. 1 mm longis, lobis lanceolatis ca. 2 mm longis et ca. 0.7 mm latis, faucibus superioribus et lobis inferioribus intus distincte papillosis; filamenta in partibus inferioribus ca. 0.6 mm longa et 0.16-0.20 mm lata in partibus superioribus ca. 0.2 mm longa base ca. 0.2 mm lata; thecae pallide virides ca. 1.5 mm longae; appendices antherarum ovatae ca. 0.35 mm longae et 0.25 mm latae; nectarium cylindricum ca. 1.2 mm altum; scapi stylorum vix vel non incrassati; appendices stylorum attenuatae dense papillosae. Achaenia ca. 4.5 mm longa prismatica 5-costata persparse minute puberula in costis minute papillato-scabridula base sensim angustiora; carpodia cylindrica in sicco plicata; setae pappi ca. 70-75 ad 5 mm longae superne leniter clavatae, cellulis apicalibus densioribus obtusioribus. Grana pollinis ca. 23  $\mu$ m in diametro.

TYPE: BRASIL: Bahia: Município de Maracás. Rod. BA 026, a 26 km ao SW de Maracás. Transição de Mata de Cipó para a Caatinga, muito perturbada por animais. Folha SD-24 (14-41b). Trepadeira. Flores esverdeadas. 27 Abril 1978. *S. Mori, L.A. Mattos Silva, J.A. Kallunki & T.S. dos Santos 9995* (Holotype CEPEC, isotype US). PARATYPE: BRASIL: Bahia: Rod. R. Branca a Una.

Plantação de Cacau. Trepadeira sôbre árvore fl. branca. 15.6.71.  
*R.S. Pinheiro 1345* (US).

*Mikania morii* has long-petiolate broadly triangular-cordate leaves similar to those of *M. stipulacea* (Vahl) Willd. of the Rio de Janeiro area and *M. hemisphaerica* Sch.Bip. ex Baker from Pará and Minas Gerais southward into Argentina. All three species have laxly pyramidally paniculate inflorescences and share a high-cylindrical form of nectary. All three species have different forms of corolla, however. In *M. morii* the corolla is most salverform with the tapering lobes sharply spreading from a short throat. The lower inside surfaces of the lobes are strongly papillose. In *M. stipulacea* the corollas have erect more oblong lobes that are only about as long as the throat, and the inside surface of the lobes is nearly smooth. In *M. hemisphaerica*, which has the longest flowers, the corollas have a much longer tube, and the limb is shortly and broadly campanulate with triangular lobes about as long as wide. The inside surface of the limb is nearly smooth. The new species seems closest to *M. stipulacea*, but the nodes have broader flaps rather than the narrow stipuliform appendages seen in the latter species.

MIKANIA SANTOSII R. M. King & H. Robinson, sp. nov.

Plantae volubiles. Caules atro-brunnescentes late fistulosi teretes striati sparse pilosi. Folia opposita, petiolis ad 5 cm longis incrassatis; laminae coriaceae oblongo-ovatae ad 18 cm longae et 10.5 cm latae base leniter late cordatae margine remote crenato-serratae apice breviter late acuminatae supra glabrae subtus pilosae fere ad basem 5-7-palmato-nervatae, nervis et nervulis supra et praesertim subtus prominulis. Inflorescentiae axillares thyrsoido-paniculatae in ramis dense corymbosae, ramis dense pilosis, ramulis ultimis 0-1 mm longis pilosulis, bracteis primariis subfoliiformibus in laminis ovatis plerumque 2.0-3.5 cm longis et 0.9-1.5 cm latis, bracteis in ramulis valde minoribus linearibus vel subulatis ad 6 mm longis. Capitula plerumque in fasciculis tripliciter disposita anguste cylindrica ca. 8-9 mm alta; bractea subinvolucralis plerumque ad basem fasciculorum disposita subulata ca. 2 mm longa et ca. 0.8 mm lata margine minute puberulo-fimbriata; bractea involucri oblongae 4-5 mm longae et ca. 1.2 mm latae base carnosae subgibbosae apice rotundatae et dense puberulae margine anguste pallide scariosae extus plerumque glabrae. Corollae albae anguste infundibulares 5.5-6.0 mm longae, tubis cylindraceis 1.5 mm longis extus glabris, faucibus ca. 3.5 mm longis extus glabris intus superne in cellulis prominentibus, lobis oblongo-ovatis ca. 1 mm longis et 0.6 mm latis margine dense fimbriatis extus superne sparse puberulis; filamenta in partibus inferioribus 1.8-2.0 mm longa plerumque 0.15 mm lata in partibus superioribus ca. 0.45 mm longa et inferne 0.2 mm lata; thecae pallidae ca. 2 mm longae; appendices antherarum ovatae ca. 0.3 mm longae et 0.25 mm latae; nectarium breviter cylindricum ca. 0.3 mm altum; basi stylorum leniter



noduliferi; appendices stylorum superne vix vel non attenuatae dense patentiter anguste papillosae. Achaenia ca. 3 mm longa prismatica 5-costata inferne glabra superne sensim puberula, pilis in cellulis apicalibus interdum clavatis; setae pappi ca. 45 plerumque 4.5-5.0 mm longae longiores ad apicem leniter latiores, cellulis apicalibus obtusioribus. Grana pollinis ca. 20  $\mu$ m in diametro.

TYPE: BRASIL: Bahia: Rio Branco, estrada de Pratas.

Trepadeira sobre árvore, fl. branca, invóloco verde. Plantação de cacau. 27.1.71. *T.S.dos Santos 1438* (Holotype CEPEC, isotype US).

*Mikania santosii* is closely related to the more widespread species, *M. globosa* Spreng. and *M. hookeriana* DC., both of which occur in Bahia. The new species is easily distinguished by the larger oblong-ovate, crenate-serrate, pilose leaf blades. The lobes of the corolla also have a more prominent fringe of marginal hairs, and the papillae of the style branches are longer.

MIKANIA TEIXEIRAE R. M. King & H. Robinson, sp. nov.

Plantae herbaceae erectae ad 1 m altae non vel pauce ramosae. Caulis late fistulosi subhexagonales distincte striati glabri. Folia opposita superne interdum alterna sessilia vel subsessilia; laminae ellipticae 6-11 cm longae et 3-7 cm latae base rotundatae vel subcordatae margine integrae vel irregulariter sinuatae apice anguste rotundatae vel breviter obtusae supra et subtus glabrae subtus pallidiores fere ad basem quinquenervatae, nervis supra prominulis pallidis, nervis et nervulis subtus leniter prominulis, nervulis tertialibus subregulariter transversalibus. Inflorescentiae terminales pyramidaliter paniculatae inferne laxae ramosae distaliter dense subcorymbosae, ramis ultimis 0-7 mm longis puberulis, bracteis inferne pauce foliiformibus plerumque 1.5-3.0 cm longis, bracteis superioribus linearibus vel lanceolatis 4-8 mm longis. Capitula plerumque in fasciculis tripliciter laxae disposita anguste cylindrica ca. 8-9 mm alta; bractea subinvolucralis plerumque ad basem fascicularum binate disposita lanceolata ad 3 mm longa margine puberula extus glabra; bracteae involucri oblongae ca. 5 mm longae et 1.5 mm latae base breviter subcarnosae apice rotundatae vel breviter obtusae glabrae. Corollae albae ca. 5.5 mm longae, tubis cylindraceis ca. 1.8 mm longis extus persparse puberulis, faucibus abrupte leniter campanulatis ca. 2.2 mm longis extus sparse puberulis intus laevibus, lobis longe triangularibus ca. 1.3 mm longis et 0.8 mm latis margine dense puberulo-fimbriatis extus superne puberulis vel sparse pilosis; filamenta in partibus inferioribus ca. 1.5 mm longa et 0.14 mm lata in partibus superioribus ca. 0.4 mm longa et base 0.16 mm lata; thecae antherarum leniter fuscescentes ca. 1.2 mm longae; appendices antherarum oblongo-lanceolatae ca. 0.5 mm longae et 0.18 mm latae; nectarium cylindricum ca. 0.4 mm altum et 0.5 mm latum; scapi stylorum supra basem mediocriter incrassati; appendices stylorum fili-

formes dense breviter papillosae apice vix angustiores. Achaenia ca. 3 mm longa prismatica 5-costata sparse puberula inferne sensim angustiora, carpodia discreta annuliformia; setae pappi ca. 32 plerumque 4.5-5.5 mm longae superne vix latiores, cellulis apicalibus acutis. Grana pollinis ca. 23  $\mu$ m in diametro.

TYPE: BRASIL: Distrito Federal: Chapada da Contagem, ca. 15 km NE of Brasília, steep campo slopes. Elev. 1100 m. Herb with ascending stems to 75 cm tall. Heads mostly in bud, white.

26 Oct. 1965. *H.S. Irwin, R. Souza, R. Reis dos Santos 9543* (Holotype US). PARATYPE: BRASIL: Distrito Federal: Corrego Covanças, near Chapada da Contagem, ca. 22 km NE of Brasília. Elev. 1000 m. Steep campo slopes. Herb ca. 1 m tall. Heads white. 11 Jan. 1966. *H.S. Irwin, R. Souza & R. Reis dos Santos 11572* (NY).

*Mikania teixeirae* is an erect herb, apparently related to *M. thapsoides* DC. The new species differs most notably by the entire sessile leaves, but also has smaller heads and prominently fringed corolla lobes.

The species is named for Dr. Alcides Teixeira of CNPq in Brasília, head of Programa Flora.

#### Literature Cited

Barroso, G. M. 1958. *Mikaniae do Brasil*. Arquivos do Jardim Botânico 15: 239-333, pl. 1-31, photo. 1-57.

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*Mikania alvimii* R. M. King & H. Robinson, Holotype, Jardim Botânico, Rio de Janeiro. Photos by Victor E. Krantz, Staff Photographer, National Museum of Natural History.



*Mikania belemii* R. M. King & H. Robinson, Holotype, Jardim Botânico, Rio de Janeiro.




ASTERACEAE of BAHIA BRAZIL

M. graziellae R. M. King & H. Robinson

HOLOTYPE: Bahia, Brazil, Jardim Botânico, Rio de Janeiro, 1952

*Mikania graziellae* R. M. King & H. Robinson, Holotype, Jardim Botânico, Rio de Janeiro.



ASTERACEAE of BAHIA BRAZIL

*Mikania hagei* R. M. King & H. Robinson, Holotype, Jardim Botânico, Rio de Janeiro.



ASTERACEAE of BAHIA BRAZIL

HERBARIUM  
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*Mikania inordinata* R. M. King & H. Robinson, Holotype, Herbario Centro de Pesquisas do Cacau (CEPEC), Itabuna, Bahia.



9995 - *Mikania*

R. M. King - Junho 1979.

CEPEC  
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13734

*Mikania morii* R. M. King & H. Robinson, Holotype, Herbario Centro de Pesquisas do Cacau (CEPEC), Itabuna, Bahia.






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HERBÁRIO CENTRO DE PESQUISAS DO CACAU  
 ...  
*Mikania santosii* R. M. King & H. Robinson  
 ...  
 ...

*Mikania santosii* R. M. King & H. Robinson, Holotype, Herbario Centro de Pesquisas do Cacau (CEPEC), Itabuna, Bahia.



*Mikania teixeirae* R. M. King & H. Robinson, Holotype, United States National Herbarium.